To: Members, Finance Plan Independent Review Panel
From: Kate Hansel, Assistant Director, California Bay-Delta Authority
Date: November 4, 2003
Re: Expanded Framework

Attached please find the document, "Expanded Framework."

This document provides a proposed common format to collect and summarize cost information and describe and quantify (to the extent possible) the benefits and beneficiaries associated with each Program element (storage, water use efficiency, levees, etc.). This material updates and expands slightly upon the framework description included in the document, "Framework and Issues Report." This document has been reviewed by and discussed with the stakeholder and agency representatives serving on the Ad Hoc Work Group supporting this Panel's deliberations.

This document, along with a detailed case study to be provided as a handout, will serve as the focal point for the Panel's 12:45 p.m. deliberations.

Bay-Delta Program

Finance Plan

Expanded Framework

The Bay Delta Authority has developed a Framework that will be applied to each program element or project/task to develop financing options. That Framework is described in the October 2003 report *Developing Bay-Delta Finance Options—Framework and Issues Report (Framework Report)*. The first three steps in the Framework are:

1. Determine program or project funding requirements – *What will it cost?*
2. Identify Cost Responsibility – *Who pays how much?*
3. Develop revenue mechanisms and financial structure – *How will the BDP be paid for over time?*

The purpose of this paper is to describe in more detail the process and analysis being used in the first three steps to develop finance options. In applying the Framework, the uniqueness of each program element or project needs to be considered. For example, each of the Bay Delta Program elements is different in terms of type of implementation, program costs, and scope of benefits. In certain cases all tasks/projects within a program element are similar in terms of benefits, beneficiaries, and costs. In others, each project or task is unique in its benefits and beneficiaries. Therefore, for some program elements, the benefits, beneficiaries, and costs will be evaluated at the program element level (e.g. science, watershed, EWA). For other program elements, the benefits, beneficiaries, and costs will be evaluated at the project or task level (e.g. conveyance, storage).

For this analysis the separate projects or tasks are referred to as components. Decisions about whether a component should be described separately or lumped together should consider the likelihood of using different funding mechanisms, producing different benefits, or producing benefits for different beneficiary groups. To the extent that these items are similar, the components should be lumped, to the extent they are different, they should be described separately.

To ensure a consistent and coordinated evaluation of benefits and costs across all program elements, a common template has been developed for the collection and summary of cost information and the description and quantification (to the extent possible) of the benefits and beneficiaries for each program element (see Tables 1 and 3). This information will be further compiled in a format to allow demonstration of various cost allocations and cost repayment strategies.

In order to deal with uncertainties in future implementation of various program elements or particular projects, reasonable and instructive implementation examples will be described for each program element and then selected to form three Program-wide implementation examples. BDA Program managers, agency managers, and stakeholders will be consulted to help select a representative range of implementation examples that reflect a reasonable expectation of what implementation of the Bay-Delta Program may look like over a 10 -20 year planning horizon.

1. What will it cost?

A template for describing cost data for an implementation example is provided in Table 1 at the end of this paper.

2. Who pays how much?

Identify and Describe Benefits.

Cost responsibility follows benefits received, therefore expected benefits for each investment need to be identified and described. For this analysis, all of the foreseeable benefits that could be produced from each investment in an implementation example will be articulated and described. The description of benefits will address issues such as geographic extent, expected timeline for receiving the benefit, ability to measure benefits level of confidence that the benefit will occur, and potential beneficiaries.

As described in the Framework Report, the expected benefits will typically be associated with the following:

- Water Supply -- new yield & water supply reliability
- Drinking water quality
- Water quality related to wastewater discharge *(new category added since Framework Report released)*
- Ecosystem – water quality, habitat improvement, & species protection
- Flood management
- Hydropower
- Recreation

Identify Beneficiaries and Quantify Benefits. After benefits are described as fully as possible, the beneficiaries should be identified and matched with the benefits. The standard set of beneficiary categories being used for this analysis is shown in Table 2.

Table 2

General Classification of Bay Delta Program Beneficiaries

Category	Sub Category	Description
Agricultural Water Users	Sacramento Valley Agriculture	Primarily water rights holders or settlement contracts
	Delta Agriculture	Primarily riparian and appropriative users
	Delta Export Agriculture	CVP and SWP Agricultural Contractors south of Delta
	Other SJV Agriculture	Eastside and other districts affecting flow into Delta
Urban Water Users	Urban Delta Exporters	Urban SWP and CVP contractors in Bay Area, So. Cal., Central Coast
	Urban In-Delta Diverters	CCWD and other urban users diverting from Delta
	Urban Above-Delta Diverters	Hetch-Hetchy system, EBMUD, Sacramento area, other above-Delta urban diverters
Wastewater Dischargers (*new category since Framework Report)*	Point Sources	Central Valley and Bay Area POTWs
	Nonpoint Sources	Agricultural drainage, urban runoff
Recreation *(revised since Framework Report)*	Reservoirs & Lakes	Recreational users of lakes, reservoirs connected to Delta, such as fishing and boating
	Downstream	Recreational users of rivers, streams, the Delta and Bay
Flood Protection Recipients	Private	Residents and private property owners in areas subject to flooding
	Public	Users of highways, railroads, other public facilities and utilities in areas subject to flooding
Hydropower Users		Power utilities and their customers that utilize the state's hydropower resources
Commercial Fishing		Industries that directly rely on Bay-Delta fisheries for commercial gain.
General Public *(revised since Framework Report)*	California	Recipients of public good benefits that accrue statewide (e.g. environmental restoration & enhancement; technology transfer)
	National	Recipients of public good benefits that accrue nationally (e.g., meeting federal laws, environmental restoration & enhancement; technology transfer)

A template for describing benefits and beneficiaries for each component within an implementation example is provided in Table 3 at the end of this paper. This template will help promote specific discussion about expected benefits for each program

investment. The benefit descriptions will provide the basis to develop economically sound cost allocations for each example

Allocate Costs. This step attempts to reconcile the costs, the expected benefits, and the relative willingness to pay by each beneficiary group to receive the benefit. Where quantitative estimates of the economic value can be generated, this step will be more direct. Where the value is only qualitative, the allocation will be much more subjective. Again, options may be necessary to reflect significant departures of stakeholder views and opinions.

3. How will the BDP be paid for over time?

Once costs are allocated to specific beneficiary groups, revenue mechanisms to repay these costs will be developed. This section allows us to address issues such as equity, ability to pay, baseline, etc.

Table 1
Cost Data

Program Element:_____
Implementation Example: _____

Component	Description / Notes	Time period	Cost estimate	Temporal Dimension	Confidence	Benefits
Components are separate projects/activities that may have different beneficiaries or expected financing methods(e.g. each surface storage project would be a separate component)	*Describe component and source of data.*	*Describe number of years or general time period for costs occurring*	*Describe costs in terms of capital, annual initial or recurring*	*Describe if one-tem cost occurring over several years, or annual costs*	*Specify one:* *High* *Medium* *Low*	*Specify all types of benefits*

Table 3
Beneficiaries and Benefits

Program Element:_____
Implementation Example:_____

Component	Beneficiary	Type of Benefit	Notes	Physical Quantification	Economic Quantification	Temporal Trend	Confidence
	Specify one of the categories from Table 2 (e.g., Urban Delta Exporters)	*Specify all types of benefits received by the beneficiary group from this implementation example*	*If estimated, provide source data. If not, provide reason*	*Insert a summary of physical changes if estimated,or state "not estimated"*	*Insert a summary of economic changes if estimated,or state "not estimated"*	*Describe if benefits are constant, random, increasing, decreasing and what causes the change if known*	*Specify one:* *High* *Medium* *Low*